

**Aphleboderrhis pubescens** Walk. (Fam. Aradidæ).

I have a single female specimen in my collection taken by Mr. O. Dietz at Brownsville, Tex., in June, 1901. I believe this is the first record of its appearance in the United States.

**Corizus viridicatus** Uhl.

Mr. Otto Heidemann has a specimen of this well-known western form taken in the vicinity of Washington, D. C.

**Acanthocerus lobatus** Burm.

Mr. Christian E. Olsen has presented me with a specimen of this species taken in New Mexico. I have carefully compared it with Cuban specimens and feel no doubt of its true identity. It must have reached New Mexico by way of Mexico but it has apparently escaped attention as yet from that country.

**Heteroscelis lepida** Stål.

I have a single male specimen of this pretty little species taken at Brownsville, Tex., in June, 1901, by Mr. O. Dietz. It is an addition to the fauna of the United States.

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## MISCELLANEOUS NOTES.

**A Cricket New to Long Island, N. Y.**—The country bordering Orient Bay near East Marion, Long Island, N. Y., is sandy in places with some pitch pines and tangle of catbriers that make protected retreats for insects and other wild creatures. Here on August 2, 1913, Mr. George P. Engelhardt and I collected a number of insects. In the course of our operations I turned over a log lying on the sand bordering the upbeach, and was surprised to see a little cricket that was evidently new to the known fauna of Long Island jump with much agility to a place of concealment. After a long hunt this cricket was captured and meanwhile Mr. Engelhardt had secured another. These insects proved to be well-grown nymphs of *Cycloptilum squamosum* Scudder.

In this JOURNAL, Vol. XVII, p. 187, December, 1909, *Cycloptilum squamosum* was reported from Lakehurst, N. J., where three males and three females were captured by the writer and Mr. Charles E. Sleight on October 3, 1909. The insect was originally described by

Scudder from a single male from Texas and a number of others have since been found in that state. I collected mature individuals at Lakeland, Fla., in May, 1912. It has also been found according to Rehn and Hebard in their revision of the genus<sup>1</sup> in Maryland (Pergande), North Carolina (Brimley and R. & H.), Georgia (Allard and R. & H.), Arizona (R. & H.), California, Colorado and Nebraska (H.).

The discovery of the species near Orient extends its known distributions on the Atlantic coast much to the north, and adds another example to the interesting insects that have been found on Long Island.—WM. T. DAVIS.

**Coleoptera Found with Lepidopterous Borers.**—Mr. Henry Bird has found the following coleoptera in the course of his searches for lepidopterous borers: *Conotrachelus anaglypticus*, stem of the fern *Woodwardia*, Lakehurst, N. J., August 20, 1913; *Sphenophorus aequalis*, bred from the sedge *Spartina*, Rye, N. Y., July 21; *Ligyris retusus*, boring wildrice, Wilmington, Del., July 16, 1909.—C. W. LENG.

**On Cioidæ.**—The beetles composing this family are small elongate rounded insects that range in length from one to about three to five mm. They are mostly of dull black or brownish colors, though a few have red or yellow elytral maculation. Many of the species have vestiture of hairs or bristles. A few however are glabrous. So far as known none of the North American species have well marked elytral striæ. The antennal joints vary in number from eight to ten. The last three (two in *Maphoca*) joints form a rather loosely jointed club. The antennæ are inserted at the anterior margin of the eyes. Tarsi four-jointed. Prothorax has lateral margin and is more or less prolonged at apex over the head. Claws of tarsi simple. Ventral segments five in number. Secondary sexual characters of males in some of the species are quite remarkable. The margin of epistoma is more or less reflexed with teeth or processes of edge. The apex of prothorax in some males being prolonged into horns or processes of various shapes and length. The first ventral segment in some species has a strong fovea at middle. The species live in fungus of the tough woody polyporoid kinds which they and their larvæ devour.

<sup>1</sup> Proceedings Acad. Nat. Sciences of Phil., June, 1912.

Here at Cincinnati, Ohio, they seem to be on the job all the year around. By crumbling the fungus into a sifting net and sifting the debris over paper, arranging it so the warm sun will shine on the paper and cause the insects to move, they can be picked out. Bunches of fungus can be gathered in woods at any time and carried home in paper bags, placed in a suitable degree of temperature and moisture, and the beetles will hatch and begin feeding. They are frequently very numerous in individuals. From the fungus I found growing on a large log (poplar) which I crumbled and broke into small pieces and sifted, I gathered over 1,000 specimens of nine species viz.: Two of *Cis*, two *Xestocis*, two *Ceracis*, one *Ennearthron*, one *Ocotemnus* and one new genus. This patch of fungus would have yielded perhaps 5,000 if so many had been wanted. To study the little organisms they should be clean and have antenna and foreleg drawn out and a few males mounted ventral side up. It is necessary to examine them with a compound microscope to count antennal joints, etc., with accuracy. The Cioidæ are often confused with some of the Scolytidæ, but the characters given will enable them to be recognized. There are other more minute characters, some of them of great value, but they are difficult to see. In the above definition, I have excluded the Rhipidandrinæ which form a tribe in the family Tenebrionidæ. I cannot find any evidence of their being of any economic importance. In the botanical museum of the Lloyd's in the department of mycology they eat up the specimens of *Polyporus*, and allied fungi, if the specimens have not been first baked or poisoned before placing them in the collection. I have heard the curator make remarks decidedly uncomplimentary to the whole beetle tribe in this respect.—CHAS. DURY.

**Reactions of the Spider, *Pholcus phalangioides*.**—During a ten months' cruise in a New Bedford whaling vessel, which sailed from Barbados, W. I., as far south as the latitude of Cape Horn, the writer observed that numerous long-legged spiders, specimens of which have since been identified by Mr. James H. Emerton as the widely distributed house spider, *Pholcus phalangioides*, were constant inmates of the ship's cabin. They occupied rather shapeless webs in shelves and low corners. Their food supply was a mystery, since the only flying insects ever seen on the vessel were minute Diptera brought on board with fruit at the Cape Verde Islands and at Fer-

nando Noronha. Nevertheless, even a four months' stay in the icy fiords of South Georgia Island, in latitude  $55^{\circ}$  South, did not eliminate the spiders, for they became active again as soon as we encountered warm weather on the return voyage.

The curious "whirling" defence of this species of spider is well known. When disturbed the animal rotates its body upon its legs, keeping the tips of the tarsi close together upon the web, while the legs are pulled out straight by centrifugal force and the rapid circling conceals the spider in a blur.

During the last week of August, 1912, when the vessel had been about two months out of port, I made a series of experiments upon the spiders in the cabin in order to determine their reaction to stimuli of touch, wind, odor, light, etc., and the duration and reiteration of the "whirling defense." The averages of the reactions are as follows:

1. The whirling response was made to tactile stimuli, that is whenever the body of the spider was actually touched with a hair, however lightly, or the web shaken.

2. The whirling response was not made to violent blowing of the breath on the spider, to the close juxtaposition of a finger or stick, to the odor of strong alcohol, nor to sunlight flashed from a mirror. If these stimuli were continued, however, the spider would finally drop from the web and retreat to a hiding place.

3. In the whirling response the first reaction to the touch stimulus was of brief duration, the spider soon slowing down, and coming to rest within 15 seconds.

4. The second and third responses were increasingly violent and of longer duration.

5. The third or fourth response (usually the latter), marked the maximum, the whirling lasting from 2 minutes and 15 seconds to 3 minutes.

6. After the third or fourth stimulus the jerky, feeble response indicated fatigue. The whirlings became shorter and slower, and disturbance continued seven or eight times always resulted in the spider dropping from the web and retreating.—ROBERT CUSHMAN MURPHY.